

DIFFRACTIVE OPTICAL ELEMENT

Abstract

A diffractive optical element including a stack of first, second and third optical regions or a stack of first, second, third and fourth optical regions, a first relief pattern formed between the first and second optical regions, and a second relief ^{pattern} ~~patterns~~ formed between the second and third or between the third and fourth optical regions. The first and second relief patterns have substantially identical pitch distributions and are substantially aligned in a direction of an optical axis. Depths of the first and second relief patterns are set such that a wavelength dependency of diffraction efficiency can be decreased over a wavelength range to be used. It is possible to manufacture in a simple manner at a low cost a diffractive optical element in which undesired ^{flares} ~~flare~~ and ^{ghosts} ~~ghost~~ are suppressed.